

166347

Page 1

N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 9/18/2017 **Start Qty:** 2.00 ***2***

Cust Item ID:

Required Date: 9/26/2017 **Req'd Qty:** 2.00 ***~***

Customer:

DAS
21
9-89

Approvals: Process Plan: 9-89 Date: SEP 18 2017

Tooling:

Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____

Date: _____

Stop *NR2*

[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																											
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval																																																							
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																							
Root Cause		FAULT CATEGORY																																																													
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :	
Misidentified ☐	Past Due ☐																																																														

Work Order ID 166347***166347***

Page 2

Monday, September 18, 2017 8:51:52 AM

Item ID: D350-1023-011**Accept*****N900040100*****Setup Start*****NS1*****Revision ID:****Stop*****NS2*****Item Name:** AS350 Heavy Duty Wearplate, OEM Skidtube Compatible**Start Date:** 9/18/2017 **Start Qty:** 2.00 ***2*****Cust Item ID:****Required Date:** 9/26/2017 **Req'd Qty:** 2.00 ***2*****Customer:****Reference:****Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____**Run Start*****NR1*****QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____**Stop*****NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

130

0.00

130

Packaging

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D350-1023-011

Location: **Fg128B****2****DAS
28
9-89****SEP 19 2017**

140

0.00

140

QC21- Final Inspection - Work Order Release

QC

Memo

0.20

Quality Control

17/9/20 **df**

am 17/9/20

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : ☐							
Misidentified ☐	Past Due ☐								

Picklist Print

Monday, September 18, 2017 8:51:55 AM

Page 1

Work Order ID: 166347

166347

Parent Item: D350-1023-011

D350-1023-011

Parent Item Name: AS350 Heavy Duty Wearplate, OEM Skidtube Compatible

Start Date: 9/18/2017

Required Date: 9/26/2017

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP REV:A 17.01.06 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D5404-041 *D5404-041* Wearplate Assembly, LH		Manufactured	No			100	Each	3.0000	1 **	2			
DAS 27 9-89 <u>Location</u> FP002 158301 <u>Loc Qty</u> 3 3 <u>Loc Code</u> 													
D5404-042 *D5404-042* Wearplate Assembly, RH		Manufactured	No			100	Each	3.0000	1 **	2			
DAS 27 9-89 <u>Location</u> FP002 158300 <u>Loc Qty</u> 3 3 <u>Loc Code</u> 													
MS35842-14 *MS35842-14* Clamp		Purchased	No			100	Each	88.0000	16 **	32			
DAS 27 9-89 <u>Location</u> ST546 ml36685 <u>Loc Qty</u> 88 88 <u>Loc Code</u> 													

SEP 18 2017

SEP 18 2017

SEP 18 2017

DAS
27
9-89

DAS
27
9-89

DAS
27
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval 	
Description Work Order Deviation				Disposition					
								Completed By 	
								Lead hand / Supervisor Approval Verification 	
								QC / QA Coordinator Approval 	

Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐				FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
				OTHER : ☐							

Work Order ID 166347

Monday, September 18, 2017 8:51:52 AM

166347

Page 1

Item ID: D350-1023-011 Accept ***N900040100*** , Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: AS350 Heavy Duty Wearplate, OEM Skidtube Compatible

Start Date: 9/18/2017 Start Qty: 2.00 ***2*** Cust Item ID:
 Required Date: 9/26/2017 Req'd Qty: 2.00 ***2*** Customer:

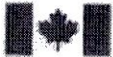
Reference: **DAS**
21

Approvals: Process Plan: **9-89** Date: **SEP 18 2017** Tooling: Date: Run Start ***NR1***
 QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr	SD SEP 17 2017							
IIN D350-1023	A								
100		0.00							DAS
100	DOCUMENT CONTROL								5
DC	Memo	0.00							9-89
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPP D350-1023-011 CHG001								
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									
120	QC4- 100% Inspect kits for completeness	0.00							
120									
QC	Memo	0.06							
Quality Control									

SEP 19 2017

2 SEP 18 2017



Department of Transport
Supplemental Type Certificate

This approval is issued to:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, Ontario
Canada K6A 1K7

Number: SH16-54

Issue No.: 1

Approval Date: December 21, 2016

Issue Date: December 21, 2016

Responsible Office:

Prairie and Northern

Aircraft/Engine Type or Model:

Airbus Helicopters AS 350 B, B1, B2, B3, BA, D;
Airbus Helicopters AS 355 E, F, F1, F2, N, NP.

Canadian Type Certificate or Equivalent:

H-83 (Airbus Helicopters AS 350 B, B1, B2, B3, BA, D)
H-87 (Airbus Helicopters AS 355 E, F, F1, F2, N, NP)

Description of Type Design Change:

Skidtube Wearplate Kit

**Installation/Operating Data,
Required Equipment and Limitations:**

Installation of the Skidtube Wearplate Kit must be in accordance with Transport Canada Civil Aviation (TCCA) approved Dart Aerospace Limited (Ltd) Installation Instructions IIN-D350-1023 Revision A, dated August 10th, 2016 or later TCCA approved revision.

Maintenance of the Skidtube Wearplate Kit must be in accordance with TCCA accepted Dart Aerospace Ltd Instructions for Continued Airworthiness ICA-D350-1023 Revision 0, dated August 10th, 2016 or later TCCA accepted revision.

Definition of the Type Design Change: TCCA approved Dart Aerospace Ltd Master Document List MDL-D350-1023 Revision A, dated December 01st, 2016 or later TCCA approved revision.

Basis of Certification for Affected Areas: Airworthiness Manual (AWM) Chapter 527 at Change 527-11 (equivalent to 14 CFR Part 27 at amendment 27-47).

— End —



Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated **will not** adversely affect the airworthiness of the modified product.

Loy Y. Liew
For Minister of Transport

4.0 WEIGHT AND BALANCE

The following weight and balance information is for the Dart wearplate kit. The weight and balance of the wearplates that are being removed (if applicable) from the aircraft is the responsibility of the installer.

Installation	Weight	LONGITUDINAL		LATERAL	
		Arm	Moment	Arm	Moment
D350-1023-011 OEM SKIDTUBE TRAINING WEARPLATE KIT	14.6 lb 6.6 kg	119.4 in 3.03 m	1743.2 in-lb 20.0 m-kg	0 in 0 m	0 in-lb 0 m-kg

5.0 PARTS LIST

Qty -011	Part Number	Description
X	D350-1023-011	OEM SKIDTUBE TRAINING WEARPLATE KIT
1	D5404-041	L/H WEARPLATE ASSY
1	D5404-042	R/H WEARPLATE ASSY
16*	MS35842-14	CLAMP

* Qty (8) spare MS35842-14 Clamps are provided with the D350-1023-011 Kit.